

Year 4 – Science – Spring 1 – Electricity

Key Statements:

A complete circuit is an uninterrupted path for electrons to flow from an energy source.

Recognise that a switch can be added to the circuit to turn the component on and off.

Electrical conductors enable electricity to pass through them easily.

Insulators do not allow electricity to pass through them.

Key words: Electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect/connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol

What have I learned already:
I have learned already that materials are used for different purposes and that there is renewable energy (Yr 2).
I know that there are different sources of light (Yr 3).

Some things use electricity from the mains:

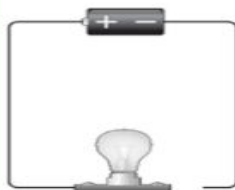


Some things use electricity from batteries:



Circuits

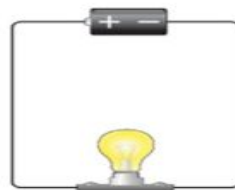
The bulb will only light if there is a battery and a complete circuit.



Incomplete circuit



No battery



Complete circuit

Activities: Can you make a light bulb work without using any wires?
Can you apply your knowledge of conductors and insulators to design and make different types of switches?